

REMARKS/ARGUMENTS

Claims 1-8 are pending in the Application. By this Amendment, claim 1 is being amended to improve its form, and claim 7 is being amended to change the dependency thereof. No new matter is involved.

In Paragraph 2 on page 2 of the Office Action, claims 1-3 and 7 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,751,354 of Suzuki. In Paragraph 4 on page 4 of the Office Action, claims 4-6 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki '354 in view of U.S. Patent 5,793,422 of Mochizuki. These rejections are respectfully traversed.

The Suzuki '354 reference describes an image sensing apparatus and method with exposure performed based on focus evaluation values. A digital electronic camera has a first stroke switch and a second stroke switch. When the first stroke switch is pressed, adjustment of focus, coarse adjustment of exposure and detection of light-source flicker are detected using a signal from an image sensing device such as a CCD. When the second stroke switch is pressed, main exposure is performed in accordance with the conditions that have been set. Thus, adjustment of focus and exposure can be performed by relying solely upon the image sensing device and without using various sensors. Moreover, processing is completed in a short period of time by the second stroke switch, which is pressed following the first stroke switch.

Suzuki et al. describes that aperture adjustment is applied in performing the coarse exposure adjustment to obtain a black level for calculation of exposure information. Thus, Suzuki et al. merely describes a circuit for calculating the state of exposure based on two conditions, one with a diaphragm closed for light shielding and the other with the diaphragm open to the minimum aperture.

Mochizuki et al. '422 discloses an electron shutter control with exposure control responsive to shutter gain differences. A video camera comprises an image sensing device for sensing an incident light to generate charges and supplying an output signal corresponding to the charges. The reference merely describes a circuit for generating exposure information to be increased or decreased based on a comparison result.

The present invention relates to a solid-state imaging apparatus which comprises a solid-state image sensor, a driving circuit, first exposure information generating circuit, second exposure information generating circuit, a selecting circuit and a timing control circuit. In particular, solid-state imaging apparatus in accordance with the invention generates second exposure information based on the current exposure information D, an integration information I, and the optimum value R0. On the other hand, neither Suzuki et al. nor Mochizuki et al. disclose generation of exposure information based on the current level of an image signal. ✓

More specifically, and as defined in independent claims 1 and 4, the present invention comprises a first exposure information generating circuit for generating stable exposure information and a second exposure information generating circuit for instantly generating exposure information based on the current level of an image signal.

Exposure information generated by the second exposure information generating circuit is used during a predetermined period, while exposure information generated by the first exposure information generating circuit is used in a subsequent period. When different exposure information is used during a predetermined period and in a period after the lapse of the predetermined period, it is possible to achieve stable exposure while instantly obtaining exposure information.

Appl. No. 09/512,754

Attorney Docket No. 005586-20033 (81784.0025)

Amdt. Dated: November 20, 2003

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Reply to Office Action of August 29, 2003

Claims 1-8 set forth such features in accordance with the invention and are therefore submitted to clearly distinguish patentably over the references. In claim 1, for example, the apparatus includes "first exposure information generating circuit for detecting a level of the image signal in a predetermined cycle to generate first exposure information which is increased or decreased based on a detection result" and "second exposure information generating circuit for calculating second exposure information based on the current level of the image signal." Claim 1 further recites "the selecting circuit selects the second exposure information during a predetermined period, and subsequent selects the first exposure information." Independent claim 4 contains similar limitation. Claims 2 and 3 depend from claim 1 while claims 5-8 depend from claim 4.

Accordingly, reconsideration and allowance are respectfully requested.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6846 to discuss the steps necessary for placing the application in condition for allowance.

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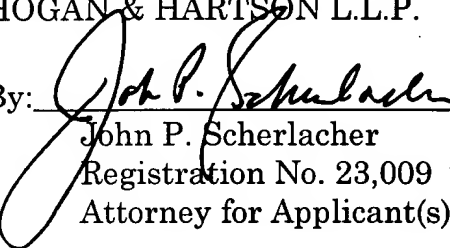
If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,

HOGAN & HARTSON L.L.P.

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By:


John P. Scherlacher
Registration No. 23,009
Attorney for Applicant(s)

500 South Grand Avenue, Suite 1900
Los Angeles, California 90071
Phone: 213-337-6700
Fax: 213-337-6701